

Post-transplant ischemic injury is associated with up-regulated AlloMap gene expression.

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Source

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Abstract

BACKGROUND:

The AlloMap gene expression test is used for the non-invasive detection of rejection. However, the impact of early post-transplant ischemic injury on subsequent AlloMap gene expression analysis has not been evaluated before.

METHODS:

Sixty seven heart transplant recipients, mean age 53 years, were evaluated at a mean 34 months post-transplant. AlloMap score was determined on the same day of heart biopsies. Nineteen patients had evidence of early post-transplant ischemic injury (Injury group). These were compared with the remaining 48 patients, Control group.

RESULTS:

Using multiple regression model with a backward selection method, post-transplant ischemic injury was found to be associated with significant increased AlloMap score compared with controls (31.5 +/- 4.6 vs. 26 +/- 6.2, $p < 0.001$). The Injury group had increased transplant vasculopathy (KM 5-year freedom from vasculopathy: 34% vs. 52%, $p = 0.015$), than Controls.

CONCLUSIONS:

Post-transplant ischemic injury is associated with up-regulated AlloMap gene expression, and hence, may provide another explanation for a high score in the absence of rejection.